

10/082,001

MARKED-UP COPY OF PENDING CLAIMS

1. A compound of the general formula



B

wherein

A is an amino acid having at least one functional group in the side chain,

B is a chemical compound covalently bound to at least one functional group of the side chain of A, chosen from the group consisting of:

(a) oligopeptides having a chain length of up to 20 amino acids, except for homopolymers of glycine consisting of up to 6 glycine monomers, and

(b) polyethylene glycols having molar masses of up to 20 000 g/mol; and

C is a group amide-bonded to A chosen from the group consisting of thiazolidine, pyrrolidine, cyanopyrrolidine, hydroxyproline, dehydroproline and piperidine.

2. The compound according to claim 1, wherein A is an α -amino acid.
3. The compound according to claim 2, wherein A is a natural α -amino acid.
4. The compound according to claim 1, wherein the amino acid is chosen from the group consisting of threonine, tyrosine, serine, arginine, lysine, aspartic acid, glutamic acid and cysteine.
5. The compound according to claim 1, wherein the oligopeptides have chain lengths of from 3 to 15 amino acids.
6. The compound according to claim 1, wherein the oligopeptides are chosen from the group consisting of homopolymers, copolymers or block copolymers.
7. The compound according to claim 1, wherein the polyethylene glycols have molar masses of at least 250 g/mol.

8. The compound according to claim 1, wherein C is a group chosen from the group consisting of thiazolidine, pyrrolidine and cyanopyrrolidine.
9. A pharmaceutical composition comprising the compound according to claim 1, optionally in combination with pharmaceutically acceptable carriers or adjuvants.
10. A cosmetic composition comprising the compound according to claim 1, optionally in combination with cosmetically acceptable carriers or adjuvants.
11. A method for topically influencing the activity of dipeptidyl peptidase IV or of analogous enzymes in a subject, comprising administering a therapeutically effective amount of at least one compound or pharmaceutical or cosmetic composition according to claim 1 to said subject.
12. A method for prophylaxis or therapy of diseases of the skin or mucosa, autoimmune diseases and inflammation in a subject, comprising administering a therapeutically effective amount of at least one compound or pharmaceutical or cosmetic composition according to claim 1 to said subject.
13. A method for prophylaxis or therapy of inflammation, psoriasis, allergies, arthritis, tumors or autoimmune diseases in a subject comprising the administration of a therapeutically effective amount of at least one compound or pharmaceutical or cosmetic composition according to claim 1 to said subject.
14. [AMENDED] A pharmaceutical composition comprising at least one compound of the general formula
$$\begin{array}{c} \text{A—C} \\ | \\ \text{B} \end{array}$$
wherein
A is an amino acid having at least one functional group in the side chain,
B is a chemical compound covalently bound to at least one functional group in the side chain of A, chosen from the group consisting of:
 - (a) oligopeptides having a chain length of up to 20 amino acids,
 - (b) polyethylene glycols having molar masses of up to 20,000 g/mol,

(c) optionally substituted organic amines, amides, alcohols, acids or aromatic compounds having from 8 to 50 carbon atoms,

C is a group, amide-bonded to A, chosen from the group consisting of thiazolidine, pyrrolidine, cyanopyrrolidine, hydroxyproline, dehydroproline and piperidine, excluding H-Glu[NH(CH₂)₇CONH(CH₂)₃NHZ] pyrrolidide and H-Lys[CO(CH₂)₃NHSO₂Pfp] pyrrolidide, provided that C is not H-Glu[NH(CH₂)₇CONH(CH₂)₃NHZ] pyrrolidide or H-Lys[CO(CH₂)₃NHSO₂Pfp] pyrrolidide

and at least one pharmaceutically acceptable adjuvant appropriate for the site of action.

15. The pharmaceutical composition according to claim 14, wherein A is an α -amino acid.
16. The pharmaceutical composition according to claim 15, wherein A is a natural α -amino acid.
17. The pharmaceutical composition according to claim 16, wherein the amino acid is chosen from the group consisting of threonine, tyrosine, serine, arginine, lysine, aspartic acid, glutamic acid and cysteine.
18. The pharmaceutical composition according to claim 14, wherein the oligopeptides have chain lengths of from 3 to 15 amino acids.
19. The pharmaceutical composition according to claim 14, wherein the oligopeptides are chosen from the group consisting of homopolymers, copolymers and block copolymers.
20. The pharmaceutical composition according to claim 14, wherein the polyethylene glycols have molar masses of at least 250 g/mol.
21. [AMENDED] The pharmaceutical composition according to claim[s] 14[to 21], wherein C is a group chosen from the group consisting of thiazolidine, pyrrolidine and cyanopyrrolidine.

22. The pharmaceutical composition according to claim 14, further comprising pharmaceutically acceptable carriers.
23. A method for topically influencing the activity of dipeptidyl peptidase IV or of analogous enzymes in a subject comprising administering to said subject a therapeutically effective amount of a pharmaceutical composition according to claim 14.
24. A Method for prophylaxis or therapy of diseases of the skin or mucosa, autoimmune diseases and inflammation in a subject comprising administering to said subject a therapeutically effective amount of a pharmaceutical composition according to claim 14.
25. A method for prophylaxis or therapy of inflammation, psoriasis, periodontitis, allergies, arthritis, tumors or autoimmune diseases in a subject comprising administering to said subject a therapeutically effective amount of a pharmaceutical composition according to claim 14. ✓

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CLAIMS AS ORIGINALLY SUBMITTED

1. A compound of the general formula



wherein

A is an amino acid having at least one functional group in the side chain,

B is a chemical compound covalently bound to at least one functional group of the side chain of A, chosen from the group consisting of:

(a) oligopeptides having a chain length of up to 20 amino acids, except for homopolymers of glycine consisting of up to 6 glycine monomers, and

(b) polyethylene glycols having molar masses of up to 20 000 g/mol; and

C is a group amide-bonded to A chosen from the group consisting of thiazolidine, pyrrolidine, cyanopyrrolidine, hydroxyproline, dehydroproline and piperidine.

2. The compound according to claim 1, wherein A is an α -amino acid.
3. The compound according to claim 2, wherein A is a natural α -amino acid.
4. The compound according to claim 1, wherein the amino acid is chosen from the group consisting of threonine, tyrosine, serine, arginine, lysine, aspartic acid, glutamic acid and cysteine.
5. The compound according to claim 1, wherein the oligopeptides have chain lengths of from 3 to 15 amino acids.
6. The compound according to claim 1, wherein the oligopeptides are chosen from the group consisting of homopolymers, copolymers or block copolymers.
7. The compound according to claim 1, wherein the polyethylene glycols have molar masses of at least 250 g/mol.

8. The compound according to claim 1, wherein C is a group chosen from the group consisting of thiazolidine, pyrrolidine and cyanopyrrolidine.
9. A pharmaceutical composition comprising the compound according to claim 1, optionally in combination with pharmaceutically acceptable carriers or adjuvants.
10. A cosmetic composition comprising the compound according to claim 1, optionally in combination with cosmetically acceptable carriers or adjuvants.
11. A method for topically influencing the activity of dipeptidyl peptidase IV or of analogous enzymes in a subject, comprising administering a therapeutically effective amount of at least one compound or pharmaceutical or cosmetic composition according to claim 1 to said subject.
12. A method for prophylaxis or therapy of diseases of the skin or mucosa, autoimmune diseases and inflammation in a subject, comprising administering a therapeutically effective amount of at least one compound or pharmaceutical or cosmetic composition according to claim 1 to said subject.
13. A method for prophylaxis or therapy of inflammation, psoriasis, allergies, arthritis, tumors or autoimmune diseases in a subject comprising the administration of a therapeutically effective amount of at least one compound or pharmaceutical or cosmetic composition according to claim 1 to said subject.
14. A pharmaceutical composition comprising at least one compound of the general formula

$$\begin{array}{c} \text{A}-\text{C} \\ | \\ \text{B} \end{array}$$
 wherein
 A is an amino acid having at least one functional group in the side chain,
 B is a chemical compound covalently bound to at least one functional group in the side chain of A, chosen from the group consisting of:
 (a) oligopeptides having a chain length of up to 20 amino acids,
 (b) polyethylene glycols having molar masses of up to 20,000 g/mol,

(c) optionally substituted organic amines, amides, alcohols, acids or aromatic compounds having from 8 to 50 carbon atoms,

C is a group, amide-bonded to A, chosen from the group consisting of thiazolidine, pyrrolidine, cyanopyrrolidine, hydroxyproline, dehydropyrolidine and piperidine, excluding H-Glu[NH(CH₂)₇CONH(CH₂)₃NHZ] pyrrolidide and H-Lys[CO(CH₂)₃NHSO₂Pfp] pyrrolidide

and at least one pharmaceutically acceptable adjuvant appropriate for the site of action.

15. The pharmaceutical composition according to claim 14, wherein A is an α -amino acid.
16. The pharmaceutical composition according to claim 15, wherein A is a natural α -amino acid.
17. The pharmaceutical composition according to claim 16, wherein the amino acid is chosen from the group consisting of threonine, tyrosine, serine, arginine, lysine, aspartic acid, glutamic acid and cysteine.
18. The pharmaceutical composition according to claim 14, wherein the oligopeptides have chain lengths of from 3 to 15 amino acids.
19. The pharmaceutical composition according to claim 14, wherein the oligopeptides are chosen from the group consisting of homopolymers, copolymers and block copolymers.
20. The pharmaceutical composition according to claim 14, wherein the polyethylene glycols have molar masses of at least 250 g/mol.
21. The pharmaceutical composition according to claims 14 to 21, wherein C is a group chosen from the group consisting of thiazolidine, pyrrolidine and cyanopyrrolidine.

22. The pharmaceutical composition according to claim 14, further comprising pharmaceutically acceptable carriers.
23. A method for topically influencing the activity of dipeptidyl peptidase IV or of analogous enzymes in a subject comprising administering to said subject a therapeutically effective amount of a pharmaceutical composition according to claim 14.
24. A Method for prophylaxis or therapy of diseases of the skin or mucosa, autoimmune diseases and inflammation in a subject comprising administering to said subject a therapeutically effective amount of a pharmaceutical composition according to claim 14.
25. A method for prophylaxis or therapy of inflammation, psoriasis, periodontitis, allergies, arthritis, tumors or autoimmune diseases in a subject comprising administering to said subject a therapeutically effective amount of a pharmaceutical composition according to claim 14.

Claims have been amended as follows:

No claims have been added or canceled.

Claim 14 has been amended to reflect changes made during PCT prosecution.

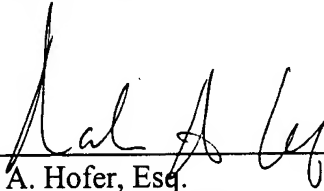
Claim 21 has been amended to remove multiple dependency.

A copy of the claims as originally submitted, a clean copy of the pending claims as amended, and a marked-up copy of the amended pending claims are included for your convenience.

Therefore, Applicant states the filing fees should be as follows:

Basic Filing Fee (small entity)	\$370
Additional Claims (5)	45
Late Charge	<u>130</u>
Total	<u>\$545</u>

Respectfully submitted,



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